REMARKS

Claims 1-2, 5-16, 18-19, 25-33, 35-37 and 41-44 are pending and under examination in the subject application.

Rejections under 35 U.S.C. §112, First Paragraph

Claims 1-2, 5-19, 25-33, 35-37 and 41-44 are rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement for the full breadth of the claims. The Examiner indicated that the specification is enabling for a method of treating and/or imaging melanin containing melanoma in a subject comprising administering an amount of a radiolabeled antimelanin antibody, wherein the antimelanin antibody is 6D2.

Applicants respectfully traverse this rejection.

Applicants would like to supplement their previous reply with the Declaration of Ekaterina Dadachova under 37 C.F.R. §1.132 (5 pages), which is attached hereto. In the Declaration, Dr. Dadachova describes additional data in support of the present invention, which were obtained with the anti-melanin monoclonal antibody 11B11 labeled with 188-Rhenium. Experiments were conducted using MNT1 pigmented human melanoma cells, which are described in the present application.

As described in the Declaration, monoclonal antibody (mAb) 11B11 was generated by immunizing BALB/c mice with purified *Cryptococcus neoformans* melanin followed by fusion of splenocytes to myeloma cells (Rosas AL, Nosanchuk JD, Feldmesser M, Cox GM, McDade HC, Casadevall A. Synthesis of polymerized melanin by *Cryptococcus neoformans* in infected rodents. *Infect. Immun.* 68(5):2845-53, 2000, which was submitted with applicants' previous reply). The purified antibody was obtained from supernatant made by growing the 11B11 hybridoma cells in standard DMEM with 5% FCS. The antibody was captured on a column using agarose beads with anti-mouse IgM (Sigma) and eluted using acid then neutralized (pH 7). The antibody concentration was determined by ELISA by comparison to a commercial standard.

For the binding experiments, ^{188}Re-11B11 was added in the amount of 0.106 nM to the increasing concentrations of whole MNT1 cells, whole MNT1 cells pre-blocked with the excess of 6D2 mAb or to osmotically lysed MNT1 cells in the centrifuge tubes pre-blocked with 1% BSA to prevent non-specific protein binding. After 1 hour incubation at 37°C the activity in the tubes was counted in a gamma counter, the cells were collected by centrifugation and the pellets were counted.

For Scatchard analysis of binding, ^{88}Re-11B11 was added in increasing amounts (0.053 nM to 0.256 nM) to osmotically lysed MNT1 cells (4 x 10^6 cells per centrifuge tube pre-blocked with 1% BSA to prevent non-specific protein binding). After 1 hour incubation at 37°C the activity in the tubes was counted in a gamma counter, the cells were collected by centrifugation and the pellets were counted. Scatchard analysis was used to compute the mAb association equilibrium constant K_a as in Lindmo T, Boven E, Cuttitta F, *et al.* (Determination of the immunoreactive fraction of radiolabeled monoclonal antibodies by linear extrapolation to binding at infinite antigen excess. *J. Immunol. Methods* 72:77-89, 1984).

The results are illustrated in the figures in the Declaration. Binding of ^{188}Re-11B11 to MNT1 highly melanized cells was melanin-specific as lysing of the cells which makes more melanin accessible for a melanin-binding mAb resulted in increased binding. 11B11 and 6D2 mAbs bind to predominantly different epitopes on melanin as pre-blocking of the cells with 6D2 had only relatively minor effect on the binding of ^{188}Re-11B11. Affinity constants for melanin-binding for 11B11 and 6D2 are 2.8 x 10^8 M^{-1} and 1.8 x 10^8 M^{-1}, respectively, which are close to each other.

These additional data provide further support for applicants' position that the specification is enabling for the skilled artisan to practice the claimed invention without undue experimentation. Accordingly, reconsideration and withdrawal of this ground of rejection are respectfully requested.

CONCLUSIONS

In view of the remarks made hereinabove and applicants' previous reply, reconsideration and withdrawal of the rejections in the September 14, 2006 Office Action and passage of the pending claims to allowance are respectfully requested. If there are any minor matters preventing the allowance of the subject application, the Examiner is requested to telephone the undersigned attorney.

No fee is deemed necessary in connection with the filing of this Supplemental Communication. However, if any fee is required with this submission or to preserve the pendency of the subject application, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 01-1785.

Respectfully submitted,

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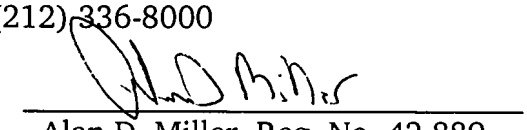
By 
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